E – Prestasi Pensyarah

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ABSTRACT

At present every job done will be assessed. Performance evaluation system has always been the focus of academics to assess its efficiency in learning. Similarly, lecturers who teach in the polytechnic in Malaysia will be assessed. Along with the development of information technology progress, there are problems in the conventional system it is file-based systems can be overcome. At each assessment time lecturers do often have difficulty in managing the questions that will be given to students. In addition, the time frame for completion of the evaluation takes a long time and interferes with learning and teaching time students and lecturers. At present, the assessment carried out using specific forms provided by the faculty. Use of the form is too much difficult for lecturers to store and update data for a long period. Lecturers Performance Evaluation System 'e-prestasi pensyarah' is a system developed for the convenience of lecturers, students and heads of departments. This system is the idea of the existing system. The main goal of this project is to create an alternative system to the existing system while increasing the effectiveness of staff performance evaluation process Polytechnic Sultan Mizan Zainal Abidin. Lecturers Performance Evaluation System incorporates some of the latest technology using Macromedia Dreamweaver MX 2004, as a programming language PHP5 and MySQL 4.1.12 as the database. "System Development Life Cycle (SDLC)" was chosen as the methodology with contact diagram and data flow diagram as a methodology in the development of this system. The system is also combined with the convenience of a short message system where after completing an evaluation of the lecturer will receive a report of their assessment scores directly to their mobile phone by text message. In general, this system can help lecturers and administrators to manage documents in a systematic performance evaluation of lecturers. In addition, it can be used to assess the performance of the particular academic staff work throughout the year.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

No	Acronym/Definition	Description
1	DBMS	Database management system
2	DBA	Database Administrator
3	SMS	Short Messaging Service
4	PSMZA	Polytechnic Sultan Mizan Zainal Abidin
5	PHP	Hypertext Preprocessor
6	HTML	Hypertext Markup Language
7	SQL	Structured Query Language
8	HTTP	Hypertext Transfer Protocol
9	UMP	University Malaysia Pahang
10	GSM	Global System for Mobile
11	USB	Universal Serial Bus
12	SDLC	Systems Development Life Cycle
13	ERD	Entity Relation Diagram
14	CD	Contact Diagram
15	DFD	Data Flow Diagram

CHAPTER 1

INTRODUCTION

1.1 Overview

Performance evaluation system has been the focus of academicians and practitioners. The main thing that is often discussed is how evaluation can be implemented effectively. The evaluation has become ineffective is not because of the system but it's because of the implementation. Performance evaluation is done by human things, at all times. Word assessment or evaluation (appraise) derived from the 'latin' word 'pretiare' which means to assess (in Coens & Jenkins, 2000). [1] Therefore we can say as a performance evaluation process evaluation to determine whether a person is working in carrying out a task. It refers to the processes in evaluating the performance of an individual. In other words, performance evaluation is considered as the process by which employee contributions to the organization in value over a period of time by a supervisor from the standards that have been set. Controversy over the performance appraisal system has long been a debate in which there are scholars say, the system more harm than good. According to Coens and Mary (2000), specifying the day-to-day performance appraisal leads to 'death' is approaching and they should be removed.[2] Additional the Deming (1982) says, have concluded that the performance appraisal system is a 'deadly disease' and suggested organization focused on the problems rather than the problems of mankind.[3] Performance evaluation system is particularly prone to fraud. On paper, this system looks easy to implement but it is not easy

as expected. Weaknesses in the implementation of many of these organizations had created negative to this system. Implementing performance assessment was not the problem but how to perform the perfect becomes the main topic. Performance evaluation is a very complex matter and to make it effective the new system must be designed and implemented with extreme caution. If not that's what it said would bring more disadvantages than advantages. The dismal implementation organizations fail to benefit from this system. Not one system but its implementation is at issue and high attention should be given to it. The person making the assessment must know how implement it. According to McGregor (1960), performance evaluation system can provide an orderly method in determining the outcome of the promotion, transfer, salary increase and to provide data that is useful to the organization in connection with their strengths and weaknesses.[4]

A system is a set of detailed methods, procedures and routines created to carry out a specific activity, perform a duty, or solve a problem. In concise Oxford Dictionary, it states that the system is a group of parts, working together according to a purpose. The use of computers nowadays has become such a part of our lives. Travel and everyday tasks become easier and without realizing we are becoming increasingly dependent on machines that we call this computer. Information must be sent quickly and swiftly to avoid any loss or leakage of information. For example, members of the business, fast delivery and safe information can produce profits multiplied. Database management system (DBMS) is a software package with computer programs that control the creation, maintenance and use of the database. It enables an organization to develop a database through a database administrator (DBA) and other experts. A database is an integrated collection of data records, files, and database objects other. Short Messaging Service or better known as SMS is a very popular service among mobile phone users. SMS was launched commercially in Malaysia for the first time in 1995. SMS is the text received by the cellular telephone users to communicate orders or instructions. SMS service is a facility that allows users to send messages in text form to other users. SMS has provided a breakthrough to a hosting service for cellular phone service has its huge market and take profits. During the service was first introduced, the telecommunications company held a promotion or activity on a large scale. This service has

attracted ambitious layer of various communities to the text message to a variety of patterns and can deliver the desired message without face to face with the receiver. Therefore, these SMS services have given the opportunity for consumers to interact with each other and accessing information more quickly facilitate communication. Statistics show the use of SMS in 2009 was 6.37 billion by Malaysian's citizen (Asia Pacific Digital Marketing Yearbook 2010).[5]

"Sistem e-Prestasi Pensyarah" is an application that designed based on the study of system "Penilaian Pensyarah" manually. Low cost is an important factor in information technology as a tool for operational and making the decision effective. Assessment of a lecturer at the polytechnic is still done manually. Students and head of department still need to fill out a form to evaluate performance of lecturer. This makes it difficult to evaluate department heads and get the information quickly. So that, to solve this issues a system called "e – Prestasi Pensyarah" will propose to be implement in "Polytechnic Sultan Mizan Zainal Abidin" PSMZA. "e – Prestasi Pensyarah" is a system that will be built to evaluate the performance of a lecturer in PSMZA. This system will help the heads of department and students to evaluate a lecturer with the minimum time and cost. This system will generate an accurate report at the end of the evaluation. The system will be used by students and administrators. Students will register as an assessor and may assess a lecturer, and provide any comments and suggestions, while administrators will be managing this system to register for the lectures will be evaluated, generate reports, update information on lecturers, removing information about the lectures. By the end of the evaluation lecturer will get the result by receiving the text messaging that is through Short Message Service (SMS) by their mobile phone. By develop this system it can provide many benefits to the community polytechnics.

1.2 Problem Statement

Evaluations of lecture performance have several significant weaknesses:

i. Lecturers have problems getting or knowing their assessment scores more quickly and accurately. The old system requires lecturers to meet the individual concerned to get their assessment scores. For lecturers who have limited time this is a problem for them because they may not have time to go to see the system administrator to get their assessment scores.

ii. Lack of a systematic calculation. In the conventional systems lecturer evaluation scores calculations less accurate. This is because the process is done manually. The administrator needs to spend more time process the results of evaluation of lecturers. This is because lecturer assessment report must be generated quickly for it to be submitted on behalf of superiors.This system can be constructed to benefit by accelerating the process of calculating scores of lecturers and lecturers to help students to assess more quickly and easily.

iii. Administrators have problems in managing the evaluation records. The conventional evaluation was done manually and base on using file-base system. The record was store by using paper. It is also really messy and hard to find lecture records. Evaluation forms need to print out to give to student and after finish evaluate the form need to store because is confidence.

1.3 Objective

The objectives to build this system are:

i. To develop the prototype of "e-Prestasi Pensyarah" for Polytechnic Sultan Mizan Zainal Abidin.

ii. To make performance evaluation process more effective and efficient.

iii. To develop a system which able to send a notification of the server to administrator via SMS.

1.4 Scope

Users of these systems can be divided into four users, namely:-

i. Students

   a. Students will use "e-Prestasi pensyarah" as evaluator to the lecturers who teaching their

ii. Administrator

   a. Administrator will manage the system such as register the student and lecturer into the system, updating, deleting, and adding the information in database.

iii. Head of Department

   a. Head of Department also use "e-Prestasi Pensyarah" as evaluator to the lecture.

   b. Head of Department also will get the overall results of the evaluation.

iv. Lecturer

   a. Lecturer can only review their evaluation scores sending by using SMS.

1.5 Project Significance

If the system is successful, it will be beneficial to the lecturer at the Polytechnic Sultan Mizan Zainal Abidin. First, it will provide an effective way and allows instant access to information and evaluation personnel by keeping all data in a database. This system will make the performance evaluation process easier to handle. This is because the system will process the information quickly and information can also be updated, added and deleted quickly. The most important, this system also makes the lecturer can receive and display information about evaluation score in minimum time. Lecturer evaluation scores will be sent using short message service SMS. The last thing is that all the information and can be accessed online via the internet. So they can complete their evaluation process at anytime and anywhere without any constraints.

1.6 Thesis Organization

This thesis consists of five (5) chapters. First chapter provides an initial overview of the project to be developed. It contains a brief explanation of the system will be developed. Aspects such as the problems, the objectives, scope, implementation and project benefits briefly but give the solid point of view about needs, why and how this system to be developed. Explaining about the benefits and advantages to be gained when the system was also set here what is too used later.

Chapter 2 is a literature review that discuss the existing system and technique or software that use in that existing system. In this chapter we will find and identify the constraint that was occurring on the existing or the conventional system.

Chapter 3 is methodology. The purpose of this chapter is to discuss what methodology will be used while develop this system. This chapter also explains about the justification of methodology used and hardware and software necessity.

Chapter 4 involves implementations that discuss about compilation of the data and table that is use based on SQL.

Chapter 5 is about result, discussion and conclusion. The elements that should have in this chapter include result analysis, the problems of build project and suggestion of the project approach to the next research. This chapter also includes summary of project.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter will discuss the scientific studies, research, observation and questionnaires are used as a reference for developing this system. This study involves the focus and the understanding and explanation of the elements involved and the relevant requirements in the development of this system later. Among analyze system requirements and evaluate and select software and hardware that will be used to develop the system. Focus of research is to get as many methods of implementation and mechanism of how the system was implemented.

"e-Prestasi Pensyarah" facilitates the coordination of lecturers' performance of a task, especially in connection with the calculation of point's scores and performance records for the lecturers. Therefore, many other systems of the questionnaire have been used in organizations by offering various benefits and facilities. This chapter will discuss the existing questionnaires system and linked to the "e-Prestasi Pensyarah".

2.2 Information System

According to Senn (1998), that information technology consists of three components: computer, communication and know-purpose.[6] The combination of these three components gives people and organizations the opportunity to acquire skills to be more productive, effective and successful. The era of information technology with the use of computer technology is very suitable for use in the operation of an organization. For example, management systems that involves a lot of data to accelerate the management and recording of information without having to do it manually. By using computer technology, information can be stored safely and effectively which will facilitate maintenance (Robert G. Murdick, 1977).[7]

Information systems can be defined as a set of elements or components of the gathering (input), process (the process) and store and disseminate (output) data and information that provides a feedback mechanism to achieve an objective and to support decision making and control within an organization. It is a combination of operations involving planning, observation, storage, management and analysis of data to produce information that can be used in the decision making process. Typically, it consists of a combination of hardware, software and telecommunications networks are built and used by humans to create, collect and distribute data typically useful in environments and organizations through an electronic network in accordance with certain procedures. In addition to make the decision-making, coordination and control, information systems can help employees to analyze problems of organization, drawing the complex and generate the new products. In information systems there are 5 key components that depend on each other: data, people, hardware, software, and procedures (O'Brien 2001)[8].

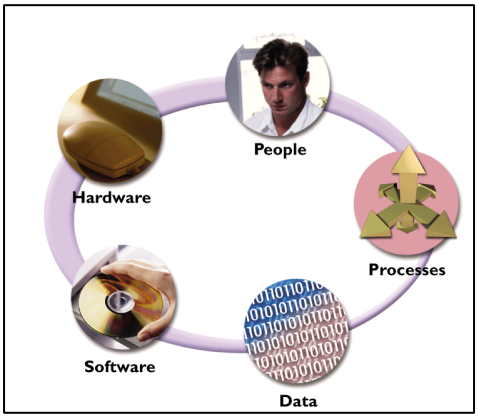

Figure 2.1 Information System Components.

2.2.1 Web Based System

Technically, web-based system is the application or service that exists on the server that can be accessed using a web browser and therefore can be accessed from anywhere in the world via the Web. According Conallen (1999), the architecture of a web environment consists of three basic components of a web server, network connectivity and one or more web browsers. Web-based system is a system that uses a Web server (Web Browser) to process any information or data. The system can be accessed using internet or intranet. It was built using the programming language PHP, Java scripts, and using MySQL as a database to store data.The important features of web-based environment are:

i. Data or content generated must be constantly updated.
ii. To be universally accessible to users through the web (subject to approval of an authorized user to access data).
iii. Most web-based applications are far more compatible across platforms than traditional installed software. Typically it takes a minimum specification to run in a web browser. Examples of web browser. (Internet Explorer, Firefox, Safari and others).
iv. Web-based system should only be installed on a server with minimum requirements on the end user workstation.

v. Web-based applications can dramatically reduce costs because reduced support and maintenance, lower requirements on end-user systems and simplified architecture.

2.3 Web Server

Web Server is a combination of software and hardware used for storing web content that can be accessed through the internet. The main function of the web server is to deliver web pages on request from clients using the Hypertext Transfer Protocol (HTTP). Web server is a computer program that receives HTTP requests from clients. Typically it replies the request in the form of HTML pages. The most common use of web servers is to host web sites, but there are other uses such as gaming, data storage or running enterprise applications. A web server serves web pages to clients across the Internet or an Intranet. The web server hosts the pages, scripts, programs, and multimedia files and serves them using HTTP, a protocol designed to send files to web browsers and other protocols (Ratha 2008).[9]

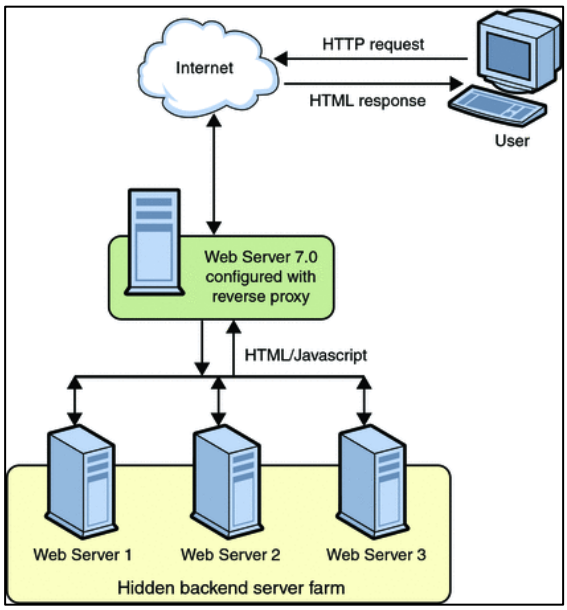

Figure 2.2 web server environment

2.4 Short Message Service (SMS)

Short messaging system or SMS is a service offered by mobile phone to send or receive short messages. By using the Short Message Service it can be a medium to delivering information quickly and easily. Since the growth of an increasingly technological SMS and seems like anyone can afford to have a mobile phone, it is possible to use SMS to send any information as reports or notifications from the system. To transmit the SMS to the mobile the GSM modem must been used. The function of GSM modem most frequently used to provide mobile internet connectivity, many of them can also be used for sending and receiving SMS and MMS messages. When a GSM modem is connected to a computer, this allows the computer to use the GSM modem to communicate over the mobile network. Regarding to Mark, S Thompson, once a neglected offerings, SMS is now a key part of marketing Strategies for wireless service providers in North America and around the world. (Mark S. Thompson, April 2002).[10] Every message sent through SMS messaging is not directly reach the destination mobile number, improvement, through some process first. in order to first base transceiver station. The message will be captured by the base transceiver station and sent to the base station controller. After which the order will be sent to the Short message service center. The SMS message center will be stored temporarily if numbers addressed in a dormant state. if the destination number is active, it will continue through the base station controller and a base transceiver station directly. The last process is sending the message to the receiver's mobile phone.

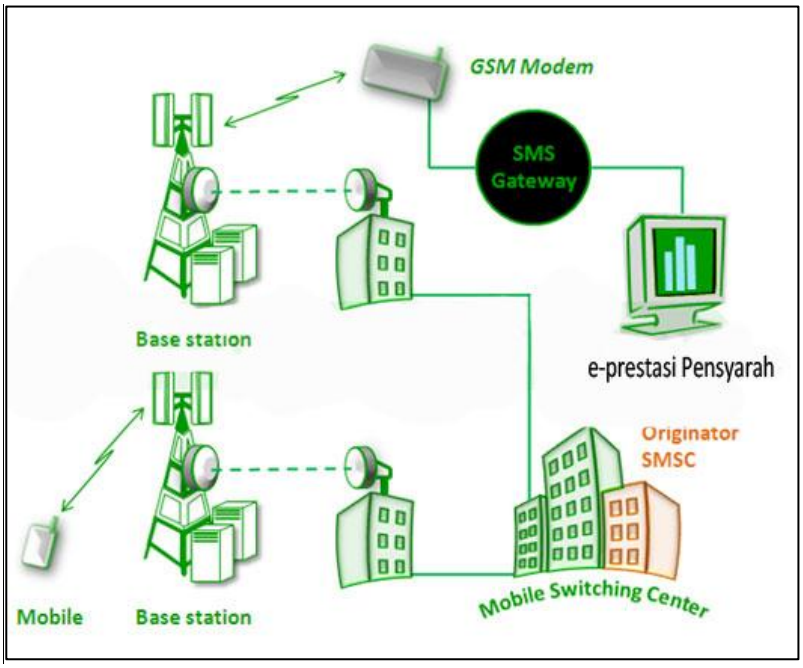

Figure 2.3 SMS delivery network

2.5 Review of Existing System

The manually system, still using a file-based system which will circulate the academic advisor lecturer evaluation form (PK (0).JPPKK.09 (L2)) to each student. Students need to fill in information about the lecturer who is in the form. Students need to understand the question granted and must choose one of four scores are provided. After which the student must score a total of all filled. Students are also required to give suggestions and comments about lecturers being evaluated.

The assessment made by the head of department, a lecturer evaluation form (PK (O). JPPKK 09 (L1)) will be available to be filled during the evaluation of a lecturer. Department heads are required to fill in information about the valuation officer and information about the lectures that will be assessed. Department heads need to choose one of scores of five scores that were available. There are four aspects of evaluation namely planning, classroom management, presentation and personality of lecturers. Thereafter, the head of the department should add up the scores have been marked. Lastly, the heads of departments